

**YOUR NATURAL GAS QUALITY MEASUREMENT SOLUTION!**

## Chandler Natural Gas Chromatograph

### On-Line Natural Gas Chromatograph with Modular Design from AMETEK

The Chandler Model 2920 Gas Analyzer System is a stand-alone gas chromatograph designed to measure the heating value of up to six natural gas streams. Its modular design makes it easy to install, operate, and maintain in the field, and an optional software package is available for remote communications, diagnostics and control. Built to withstand harsh environmental conditions, the Model 2920 delivers the repeatability and accuracy of a laboratory gas chromatograph. It uses field-proven technologies and industry-standard gas chromatographic techniques.

#### FLEXIBLE, MODERN DESIGN

The Model 2920 System was designed for easy installation and maintenance. Its modular components (electronics, chromatograph, and stream selector), unlike other on-line systems, are housed in a single NEMA 4 enclosure. It takes hours, not days, to put the Model 2920 into operation and allows for fast, easy field-repairs and minimum downtime, dramatically reducing installation and operation cost.

#### OPERATION

A simple menu guides you through each operation step-by-step while prompting you for information to configure parameters for gas analysis, calibration, data retrieval, and diagnostics. Sampling time can be set or adjusted quickly and easily.

- SI (kJ/m<sup>3</sup>) units or English (units BTU/Scf) units can be easily selected.
- Samples are automatically purged between analyses.
- Calibration is fast and automatic.
- Data are password-protected to prevent tampering and ensure security.



*Model 2920 On-Line Natural Gas Chromatograph*

#### FEATURES

- Easy to install and maintain.
- Flexible, one-site, one-structure installation for all components.
- Dual on-board computers for simultaneous operation and communications.
- Automatic restart after power outage.
- Built-in data protection and diagnostics.
- Compliance with industry standards: GPA, ASTM, ISO, AGA
- Maintains a Microsoft® standard database (MDB) for all analysis results.
- Network compatible.

## SPECIFICATIONS

### Performance:

Range: 0-2000 BTU/scf  
Repeatability:  $\pm 0.05\%$  or  $\pm 0.5$  BTU/1000 BTU  
Standards: Meets applicable GPA, ASTM, AGA-8 (direct method) and ISO standards.  
Approved for: Custody Transfer by Industry Canada, California Public Utility Commission and GOSSTANDART of Russia.

### Environmental:

Operating Temp:  $-10^{\circ}$  to  $110^{\circ}$ F ( $-25$ - $45^{\circ}$ C)  
Rating: Approved by Factory Mutual Corporation, Canadian Research Assoc. and Gosstandard of Russia for use in Class I, Div 2, Groups C&D locations. European EMC approved.  
Enclosure: NEMA 4

### Sample:

Analyzes liquid-free natural gas that contains nitrogen, methane, carbon dioxide, ethane, propane, I-butane, N-butane, I-pentane, neo-pentane, N-pentane,  $C_6$  and heavier components.

Max Inlet Pressure: 50 psig (450 kPa)  
Min Inlet Pressure: 7 - 10 psig (48 - 69 kPa). Lower pressures are possible if lag time is not excessive.  
Connection: 1/8" stainless steel tube  
Speed Loop: Each inlet is equipped with a speed loop. Can be disabled to minimize emissions.  
Conditioning: Sample probe, regulator and coalescing filter recommended for each stream.

### Power Requirements:

115 or 230 VAC  $\pm 10\%$ , 50/60 Hz  
250 VA startup, 40 VA operating

### Gas Requirements:

Carrier Gas: Zero-grade helium (99.995% pure)  
Pressure: 150 psig (1135 kPa)  
Connection: 1/8" SS tube  
Usage: Full-size bottle @ 2200 psig (15 Mpa)  
Will last approximately 3 months.

### Analog Output Signals:

Chromatogram: 0-10 VDC, 1000 Ohm impedance.  
Oven temperature: 0-10 VDC, 1000 Ohm impedance.  
4-20 mA outputs: Model 298 transmitter option provides four 4-20 mA outputs per stream. Connects to auxiliary port.

### Alarms:

8 programmable hardware Hi/Lo alarms (optional)  
120 software alarms

### Printer Interface:

Parallel Port: Centronics interface to dot-matrix, laserjet or inkjet printer.  
Main Port: RS-232C, 300-9600 baud, non/even/odd parity, 7 or 8 word length, 1 or 2 stop bits, modem compatible, DTE.  
Aux Port: RS-232C, 300-9600 baud, non/even/odd parity, 7 or 8 word length, 1 stop bit, local 3-wire communication, DTE.

*Hayes®-compatible modem, leased line modems, cellular modems, and radio modems can be used with the main port. Both ports can be used with Modbus® ASCII communications to a variety of RTU and flow computers. Consult the factory for further details.*

## ACCESSORIES / OPTIONS

- Communications software (BTUCOMM)
- Cabinet heater
- 4-20 mA analog transmitter
- Alarm relays
- Sampling kits
- RS-232C serial port extender
- Short haul modem for printer (up to 5 miles / 8.5 km)
- Helium and calibration gas regulators
- NEMA 4X housing
- Integral Class I, Div 2 modem
- Metric fitting adapter kit
- Automatic and manual helium gas manifold kits

*One of a family of innovative process analyzer solutions from AMETEK Process Instruments. Specifications subject to change without notice.*

**USA - Pennsylvania**  
150 Freeport Road  
Pittsburgh, PA 15238  
Ph. 412-828-9040  
Fax 412-826-0399



**CANADA**  
2876 Sunridge Way N.E.  
Calgary, AB T1Y 7H9  
Ph. 403-235-8400  
Fax 403-248-3550

**USA - Delaware**  
455 Corporate Blvd.  
Newark, DE 19702  
Ph. 302-456-4400  
Fax 302-456-4444

**USA - Oklahoma**  
2001 N. Indianwood Ave.  
Broken Arrow, OK 74012  
Ph. 918-250-7200  
Fax 918-459-0165

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**SUPPORT LOCATIONS**

**USA - Texas**  
Ph. 281-463-2820  
Fax 281-463-2701

**CHINA - Beijing**  
Ph. 86-10-85262111  
Fax 86-10-85262141

**CHINA - Shanghai**  
Ph. 86 21 6426 7049  
Fax 86 21 6426 7054

**FRANCE**  
Ph. 33 1 30 68 69 20  
Fax 33 1 30 68 69 29

**GERMANY**  
Ph. 49 21 59 91 36 0  
Fax 49 21 59 91 3680

**MIDDLE EAST - Dubai**  
Ph. 971-4-881 2052  
Fax 971-4-881 2053

**SINGAPORE**  
Ph. 65-6484-2388  
Fax 65-6481-6588